

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A controller apparatus configured to implement paging control in which, when the controller apparatus receives a packet addressed to a mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the controller apparatus comprising:
a paging area forming unit having a plurality of algorithms for forming the paging area;

wherein the paging area forming unit is configured to form the paging area of the mobile terminal by an algorithm of the plurality of algorithms which is associated with an application according to a communication use of the mobile terminal, and the application is started by the mobile station terminal and is specified by the mobile terminal.

Claim 2 (Original): The controller apparatus as set forth in claim 1, wherein the paging area forming unit is configured to form the paging area of the mobile terminal, in accordance with a load condition or traffic distribution of the controller apparatus.

Claim 3 (Currently Amended): A mobile terminal configured to implement paging control in which, when a controller apparatus receives a packet addressed to the mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the mobile terminal comprising:
an algorithm specifying unit configured to specify, to the controller apparatus, an algorithm for forming the paging area of the mobile terminal, the algorithm being associated

with an application according to a communication use of the mobile terminal, and the application being started by the mobile terminal; and

a paging control unit configured to perform the paging control based on information on the paging area formed by the controller apparatus based on the algorithm.

Claim 4 (Original): The mobile terminal as set forth in claim 3, further comprising:
a processing language specifying unit configured to specify, to the controller apparatus, a processing language in which an algorithm for forming the paging area is written;

wherein the algorithm specifying unit is configured to specify the algorithm written in the processing language when a result of determination that the processing language can be handled is received from the controller apparatus.

Claim 5 (Previously Presented): A controller apparatus configured to implement paging control in which, when the controller apparatus receives a packet addressed to a mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the controller apparatus comprising:

an algorithm specifying unit configured to specify, to the mobile terminal, identification information of an algorithm stored in the mobile terminal for the mobile terminal to use in forming the paging area of the mobile terminal; and

a paging control unit configured to perform the paging control based on the paging area formed by the mobile terminal based on the algorithm.

Claim 6 (Original): The controller apparatus as set forth in claim 5, further comprising:

a processing language specifying unit configured to specify, to the mobile terminal, a processing language in which an algorithm for forming the paging area is written; wherein the algorithm specifying unit is configured to specify the algorithm written in the processing language when a result of determination that the processing language can be handled is received from the mobile terminal.

Claim 7 (Currently Amended): A mobile terminal configured to implement paging control in which, when a controller apparatus receives a packet addressed to a mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the mobile terminal comprising:

a paging area forming unit associating and storing an identification information of an application and an identification information of an algorithm for forming the paging area;

wherein the paging area forming unit is configured to form the paging area of the mobile terminal by an algorithm which corresponds to the identification information of the algorithm associated with the identification information of the application according to a communication use of the mobile terminal, and the application being started by the mobile terminal.

Claim 8 (Currently Amended): The mobile terminal as set forth in claim 7, wherein the paging area forming unit is configured to form the paging area of the mobile terminal, in accordance with ~~a communicating use~~ or movement characteristics of the mobile terminal.

Claim 9 (Currently Amended): A mobile terminal configured to implement paging control in which, when a controller apparatus receives a packet addressed to a mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the mobile terminal comprising:

a paging area forming unit associating and storing an identification information of an application and an identification information of an algorithm for forming the paging area; and

a transmitting unit configured to transmit, to the controller apparatus, information on the paging area formed by the paging area forming unit,

wherein the paging area forming unit forms a paging area of the mobile terminal based on an algorithm corresponding to the identification information of the algorithm associated with the identification information of the application according to a communication use of the mobile terminal, and the application being started by the mobile terminal, and

when information on the paging area different from the information on the paging area formed by the paging area forming unit is received from the controller apparatus, the transmitting unit is configured to transmit, to a different controller apparatus, the information on the paging area formed by the paging area forming unit.